

### **REMARKS**

This is a full and timely response to the outstanding non-final Office Action mailed July 11, 2005. Upon entry of the amendments in this response, claims 1 – 3 – 7, 13, 15 – 19, and 42 – 66 remain pending. In particular, Applicants add claims 60 – 66, amend claims 1, 6, 7, 13, 42, 43, 46, and 49, and cancel claim 2 without prejudice, waiver, or disclaimer. Applicants cancel claim 2 merely to reduce the number of disputed issues and to facilitate early allowance and issuance of other claims in the present application. Applicants reserve the right to pursue the subject matter of these canceled claims in a continuing application, if Applicants so choose, and do not intend to dedicate the canceled subject matter to the public. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

#### **I. Rejections Under 35 U.S.C. §251**

The Office Action indicates that claims 42 – 53, and 47 – 60 stand rejected under 35 U.S.C. §251 as allegedly being an improper recapture of broadened claimed subject matter surrendered in the application for the patent upon which the present reissue is based. Applicants respectfully traverse this rejection for at least the reason that claims 42 – 53, and 47 – 60 include subject matter that is not present in the application for the patent upon which the present reissue is based. A “patentee is free to acquire, through reissue, claims that are narrower in scope than the canceled claims...” (Ball Corp. v. United States 729 F.2d 1429, 1436 – Fed. Cir. 1984). In addition, “[i]f the reissue claims are narrower in scope than the claims canceled from the original application by inclusion of [a] limitation added to define the original application claims over the art, there will be no recapture, even if the reissue claims are broader than the canceled claims in some other respect (*i.e.*, an aspect not related to the surrender made in the original application)” MPEP §1402.02.

More specifically, claims 42, 44, 45, 51, and 52 include “a viewing angle of about 35 degrees in the vertical direction and about 55 degrees in the horizontal direction...” which does not appear to be subject matter canceled from the application for the patent upon which the present reissue is based. For at least this reason, Applicants submit that claims 42 – 53 and 47 – 60 are allowable. (See MPEP §1402.02)

Claims 43, 53, and 54 include that “a polarizer is positioned between a liquid crystal display panel and said optical film, and a direction along which at least a portion of the peaks

and valleys of said isosceles triangle prisms are oriented as aligned in parallel to a polarizing axis of said polarizer.” Applicants submit that this provides an element that makes the claims narrower than the claims as originally submitted in the application for the patent upon which the present reissue is based. For at least this reason, Applicants submit that claims 42 – 53 and 47 – 60 are allowable. (See MPEP §1402.02)

Claims 44 and 45 include “a viewing angle of about 35 degrees in the vertical direction and about 55 degrees in the horizontal direction...” Applicants submit provides an element that makes the claims narrower than the claims as originally submitted in the application for the patent upon which the present reissue is based. For at least this reason, Applicants submit that claims 42 – 53 and 47 – 60 are allowable. (See MPEP §1402.02)

Claim 46, 47, 48, 57, and 58 include “a viewing angle of about 35 degrees in the vertical direction and about 55 degrees in the horizontal direction...” Applicants submit that this provides an element that makes the claims narrower than the claims as originally submitted in the application for the patent upon which the present reissue is based. For at least this reason, Applicants submit that claims 42 – 53 and 47 – 60 are allowable. (See MPEP §1402.02)

Claims 49, 50, 59, and 60 include that “a polarizer is positioned between a liquid crystal display panel and said optical film, and a direction along which at least a portion of the peaks and valleys of said isosceles triangle prisms are oriented as aligned in parallel to a polarizing axis of said polarizer.” Applicants submit that this provides an element that makes the claims narrower than the claims as originally submitted in the application for the patent upon which the present reissue is based. For at least this reason, Applicants submit that claims 42 – 53 and 47 – 60 are allowable. (See MPEP §1402.02)

The Office Action also indicates that claims 51 – 60 are rejected under 35 U.S.C. 251 as allegedly being based upon new matter added to the patent for which reissue is sought. Applicants respectfully submit that the subject matter of claims 51 – 60 should not be considered new matter for at least the reason that, as illustrated in the enclosed Exhibit A, pursuant to 37 C.F.R. 1.132, MPEP §716, that one of ordinary skill in the art, upon reading the present application would understand the present application to include the subject matter that the Office Action asserts as new matter. For at least this reason, Applicants respectfully traverse this rejection, and submit that claims 51 – 60 are allowable.

## **II. Rejections Under 35 U.S.C. §112**

The Office Action indicates that claims 51 – 60 stand rejected under 35 U.S.C. §112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants respectfully submit that the subject matter of claims 51 – 60 should not be considered new matter for at least the reason that, as illustrated in the enclosed Exhibit A, pursuant to 37 C.F.R. 1.132, MPEP §716, that one of ordinary skill in the art, upon reading the present application would understand the present application to include the subject matter that the Office Action asserts as new matter. For at least this reason, Applicants respectfully traverse this rejection, and submit that claims 51 – 60 are allowable.

## **III. Rejections Under 35 U.S.C. §103**

In order for a claim to be properly rejected under 35 U.S.C. §103, the teachings of the cited art reference must suggest all features of the claimed invention to one of ordinary skill in the art. *See, e.g., In re Dow Chemical*, 837 F.2d 469, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988); *In re Keller*, 642 F.2d 413, 208 U.S.P.Q. 871, 881 (C.C.P.A. 1981). Further, “[t]he PTO has the burden under section 103 to establish a prima facie case of obviousness. It can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references.” *In re Fine, Minnesota Mining and Mfg.Co. v. Chemque, Inc.*, 303 F.3d 1294, 1299 (Fed. Cir. 2002).

### **A. Claim 1 is Patentable Over *Kashima* in View of *Kaneko***

The Office Action indicates that claim 1 stands rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over U.S. Patent Number 5,442,523 (“*Kashima*”) in view of JPO 01-13101 (“*Kaneko*”). Applicants respectfully traverse this rejection for at least the reason that *Kashima* in view of *Kaneko* fails to disclose, teach, or suggest all of the elements of claim 1, as amended. More specifically, claim 1, as amended, recites:

A liquid crystal display device including a liquid crystal display panel and a back light device, said back light device comprising:

- a light source for emitting light;
  - a light guide means having a top surface facing a back surface of said liquid crystal display panel and a side surface receiving said light from said light source;
  - a reflector means provided on a back surface of said light guide means; and
  - an optical film of transparent material positioned between said back surface of said liquid crystal display panel and said top surface of said light guide means, including a first surface having a wave structure including a plurality of regularly spaced isosceles triangle prisms arranged side-by-side, the prisms having smooth surfaces, and a second surfacing having an optically rough structure for performing diffuse transmissions, wherein a top angle of said isosceles triangle prisms is in a range of 95 degrees to 120 degrees for flat, angles prism surfaces to gather light from the diffuse transmission into a desired viewing angle for the liquid crystal display panel,
- wherein a polarizer is positioned between said liquid crystal display panel and said optical film, and a direction along which said peaks and valleys of said isosceles triangle prisms are oriented is aligned in parallel to a polarizing axis of said polarizer and the tops of the isosceles triangle prisms are not farther than 160  $\mu\text{m}$  apart.*

More specifically, as the Office Action indicates that claim is allowable, but objected to as being dependent upon a rejected base claim. To comply with the Office Action's request, Applicants amend claim 1 to incorporate the subject matter from claim 2. Applicants submit that claim 1, as amended, is allowable over the cited art.

**B. Claim 6 is Patentable Over *Kashima* in View of *Kaneko***

The Office Action indicates that claim 6 stands rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over U.S. Patent Number 5,442,523 ("*Kashima*") in view of JPO 01-13101 ("*Kaneko*"). Applicants respectfully traverse this rejection for at least the reason that *Kashima* in view of *Kaneko* fails to disclose, teach, or suggest all of the elements of claim 6, as amended. More specifically, claim 6, as amended, recites:

- A liquid crystal display device including a liquid crystal display panel and a back light device, said back light device comprising:
  - a light source for emitting light;
  - a light guide means having a top surface facing a back surface of said light crystal display panel and a side surface receiving said light from said light source;
  - a reflector means provided on a back surface of said light guide means;
  - and

an optical film of transparent material positioned between said liquid crystal display panel and said light guide means, including a first surface having a structure including a plurality of quadrangular prisms, which are substantially the same size and shape, in an orderly matrix of equally spaced prisms, the prisms having smooth surfaces and a second surface having an optically rough structure for performing diffuse transmission wherein a top angle of said quadrangular prisms is in a range of 95 degrees to 120 degrees for flat, angles sides of the prisms to gather the light from the diffuse transmission of the second surface into the desired viewing angle for the liquid crystal display device,  
*wherein a polarizer is positioned between said liquid crystal display panel and said optical film, and a direction along which said peaks and valleys of said quadrangular prisms are oriented is aligned in parallel to a polarizing axis of said polarizer.*

More specifically, Applicants amend claim 6 to incorporate subject matter from allowable claim 2. For at least this reason, Applicants submit that claim 6, as amended, is allowable over the cited art.

**C. Claim 13 is Patentable Over *Kashima* in View of *Kaneko***

The Office Action indicates that claim 13 stands rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over U.S. Patent Number 5,442,523 ("*Kashima*") in view of JPO 01-13101 ("*Kaneko*"). Applicants respectfully traverse this rejection for at least the reason that *Kashima* in view of *Kaneko* fails to disclose, teach, or suggest all of the elements of claim 13, as amended. More specifically, claim 13, as amended, recites:

A liquid crystal display device including a liquid crystal display panel and a back light device, said back light device comprising:  
a light source for emitting light;  
a light guide having a top surface facing a back surface of said display panel and a side surface receiving said light from said light source;  
a reflector provided on a back surface of said light guide; and  
an optical film of light transparent material positioned between said back surface of said liquid crystal display panel and said top surface of said light guide, said optical film including a first surface having an optically rough structure for diffuse-transmitting said light from said light guide and a second surface having a wave structure including a plurality of isosceles triangle prisms arranged side-by-side, the prisms having smooth surfaces for refracting said light diffuse-transmitted from said first surface to gather light passing through said second

surface in a direction toward said display panel, wherein a top angle of said isosceles triangle prisms of said optical film is in a range of about 90 degrees to about 120 degrees for flat, angle prism surfaces to gather light from the diffuse transmission and directionally distribute said light within a range defined by a given angle,  
*wherein a polarizer is positioned between said liquid crystal display panel and said optical film, and a direction along which said peaks and valleys of said isosceles triangle prisms are oriented is aligned in parallel to a polarizing axis of said polarizer and the tops of the isosceles triangle prisms are not farther than 160  $\mu$ m apart.*

More specifically, Applicants amend claim 13 to incorporate subject matter from allowable claim 2. For at least this reason, Applicants submit that claim 13, as amended is allowable over the cited art.

**D. Claim 42 is Patentable Over *Kashima* in View of *Kaneko***

The Office Action indicates that claim 42 stands rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over U.S. Patent Number 5,442,523 ("*Kashima*") in view of JPO 01-13101 ("*Kaneko*"). Applicants respectfully traverse this rejection for at least the reason that *Kashima* in view of *Kaneko* fails to disclose, teach, or suggest all of the elements of claim 42, as amended. More specifically, claim 42, as amended, recites:

An optical film of light transparent material including a first surface having an optically rough structure for diffuse-transmitting incident light and a second surface having a wave structure including a plurality of isosceles triangle prisms arranged side-by-side, the prisms having smooth surfaces for refracting said light diffuse-transmitted from said first surface and directionally distributing said diffuse-transmitted light through said second surface for increasing illumination within a viewing angle of about 35 degrees in the vertical direction and about 55 degrees in the horizontal direction wherein a top angle of said isosceles triangle prisms is a range of about 90 degrees to about 120 degrees,  
*wherein a polarizer is positioned between a liquid crystal display panel and said optical film, and a direction along which at least a portion of peaks and valleys of said isosceles triangle prisms are oriented is aligned in parallel to a polarizing axis of said polarizer and the tops of the isosceles triangle prisms are not farther than 160  $\mu$ m apart.*

More specifically, Applicants amend claim 42 to incorporate subject matter from allowable claim 2. For at least this reason, Applicants submit that claim 42, as amended

is allowable over the cited art.

**E. Claim 43 is Patentable Over *Kashima* in View of *Kaneko***

The Office Action indicates that claim 43 stands rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over U.S. Patent Number 5,443,523 ("*Kashima*") in view of JPO 01-13101 ("*Kaneko*"). Applicants respectfully traverse this rejection for at least the reason that *Kashima* in view of *Kaneko* fails to disclose, teach, or suggest all of the elements of claim 43, as amended. More specifically, claim 43, as amended, recites:

An optical film of light transparent material including a first surface having an optically rough structure for diffuse-transmitting incident light and a second surface having a wave structure including a plurality of isosceles triangle prisms arranged side-by-side, the prisms having smooth surfaces for refracting said light diffuse-transmitted from said first surface and directionally distributing said diffuse-transmitted light through said second surface wherein a top angle of said isosceles triangle prisms is in a range of about 90 degrees to about 120 degrees, wherein the tops of the isosceles triangle prisms are no more than 160  $\mu\text{m}$  apart, *and wherein a polarizer is positioned between a liquid crystal display panel and said optical film, and a direction along which at least a portion of peaks and valleys of said isosceles triangle prisms are oriented is aligned in parallel to a polarizing axis of said polarizer.*

More specifically, Applicants amend claim 43 to incorporate subject matter from allowable claim 2. For at least this reason, Applicants submit that claim 43, as amended is allowable over the cited art.

**F. Claim 46 is Patentable Over *Kashima* in View of *Kaneko***

The Office Action indicates that claim 46 stands rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over U.S. Patent Number 5,443,523 ("*Kashima*") in view of JPO 01-13101 ("*Kaneko*"). Applicants respectfully traverse this rejection for at least the reason that *Kashima* in view of *Kaneko* fails to disclose, teach, or suggest all of the elements of claim 46, as amended. More specifically, claim 46, as amended, recites:

An optical film for use in a liquid crystal display having a front portion and a back portion, said optical film comprising:  
diffusing means including an optically rough structure on a first surface of said film for diffuse-transmitting light illuminated proximal to said

back portion of said display; and  
refracting means on a second surface of said film including a plurality of isosceles triangle prisms arranged side-by-side for directionally distributing said diffuse-transmitted light toward said front portion of said display and for increasing luminance of light within a viewing angle of about 35 degrees in the vertical direction and about 55 degrees in the horizontal direction of said front portion of said display, wherein a top angle of said isosceles triangle prisms is in a range of about 90 degrees to about 120 degrees,  
*wherein a polarizer is positioned between said liquid crystal display panel and said optical film, and a direction along which at least a portion of peaks and valleys of said isosceles triangle prisms are oriented is aligned in parallel to a polarizing axis of said polarizer and the tops of the isosceles triangle prisms are not farther than 160  $\mu$ m apart.*

More specifically, Applicants amend claim 46 to incorporate subject matter from allowable claim 2. For at least this reason, Applicants submit that claim 46, as amended is allowable over the cited art.

**G. Claim 49 is Patentable Over *Kashima* in View of *Kaneko***

The Office Action indicates that claim 49 stands rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over U.S. Patent Number 5,443,523 ("*Kashima*") in view of JPO 01-13101 ("*Kaneko*"). Applicants respectfully traverse this rejection for at least the reason that *Kashima* in view of *Kaneko* fails to disclose, teach, or suggest all of the elements of claim 49, as amended. More specifically, claim 49, as amended, recites:

A film for use in an optical system comprising a light source and a polarizer having a polarization axis, the film comprising a transparent material including a first surface and a second surface, said first surface having a structure including a plurality of isosceles triangular prisms arranged side-by-side for increasing luminance of light passing through said film in a direction corresponding to said polarization axis of said polarizer, and said second surface having an optically rough structure for diffuse transmitting light emitted by said light source, wherein a top angle of said isosceles triangle prisms is in a range of about 90 degrees to about 120 degrees, wherein the tops of the isosceles triangle prisms are no more than 160  $\mu$ m apart, *and wherein said polarizer is positioned between a liquid crystal display panel and said film, and a direction along which at least a portion of peaks and valleys of said isosceles triangle prisms are oriented is aligned in parallel to a polarizing axis of said polarizer.*



More specifically, Applicants amend claim 49 to incorporate subject matter from allowable claim 2. For at least this reason, Applicants submit that claim 49, as amended is allowable over the cited art.

**H. Claims 15 – 19, 44 – 45, and 47 – 60 are Patentable Over the Cited Art**

In addition, dependent claims 15 – 19, 55, and 56 are believed to be allowable for at least the reason that these claims depend from allowable independent claim 13. Dependent claims 44 – 45, 51, and 52 are believed to be allowable for at least the reason that they depend from allowable independent claim 42. Dependent claims 53 and 54 are believed to be allowable for at least the reason that they depend from allowable independent claim 43. Dependent claims 57 and 58 are believed to be allowable for at least the reason that they depend from allowable independent claim 46. Dependent claims 50, 59, and 60 are believed to be allowable for at least the reason that they depend from allowable independent claim 49. *In re Fine, Minnesota Mining and Mfg. Co. v. Chemque, Inc.*, 303 F.3d 1294, 1299 (Fed. Cir. 2002).

**IV. New Claims 61 – 66**

**A. New Claims 61 – 63 are allowable**

In addition, Applicants add new claims 61 – 63. Applicants submit that new claims 61 – 63 are allowable for at least the reason that these claims include an “optical film of transparent material, comprising... a second surface having an optically rough structure for performing diffuse transmission, wherein the tops of adjacent isosceles triangle prisms are separated by a variation of pitches therebetween.” In addition, Applicants submit that the subject matter of new claims 61 – 63 is present at column 4, lines 46 – 50 and Figure 4.

**B. New Claims 64 – 66 are allowable**

In addition, Applicants add new claims 62 – 66. Applicants submit that new claims 64 – 66 are allowable for at least the reason that these claims include an “optical film of transparent material, comprising... a second surface having an optically rough structure for performing diffuse transmission, wherein the tops of adjacent quadrangular prisms are separated by a variation in pitches therebetween.” In addition, Applicants submit that the subject matter of new claims 64 – 66 is present at column 4, lines 46 – 50 and Figure 4.

### CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, Applicants respectfully submit that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested.

Any other statements in the Office Action that are not explicitly addressed herein are not intended to be admitted. In addition, any and all findings of inherency are traversed as not having been shown to be necessarily present. Further, any and all findings of well-known art and official notice, or statements interpreted similarly, should not be considered well known for at least the specific and particular reason that the Office Action does not include specific factual findings predicated on sound technical and scientific reasoning to support such conclusions.

If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

No fee is believed to be due in connection with this amendment and response to Office Action. If, however, any fee is believed to be due, you are hereby authorized to charge any such fee to deposit account No. 20-0778.

Respectfully submitted,



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